REMARKS/ARGUMENTS

Objections and rejections:

Claims 1-20 are rejected under USC 112 second paragraph of the 35 USC 112. A single claim, which claims both an apparatus and the method steps of using the apparatus, is indefinite under USC 112, second paragraph. Regarding claim 1, claim 1 combines a method of driving a liquid crystal display device comprising: steps a, b, and c and the LCD device comprising: LCD panel, voltage selection circuit, and a plurality of output buffers. Correction is required. Claims 1-13, 28, and 29 are rejected under 35 USC 102(e) as being anticipated by Akimoto et al. (Patent No.: US 6,756,962). Claims 14-17, 21-23, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akimoto et al. (Patent No.: US 6,756,962) in view of Imamura (Patent No.: US 6,466,192).

Response:

1. Objections to claim 1

Regarding claim 1, claim 1 has been amended to correct the basis of the objection that a claim that claims both an apparatus and the method steps of using the apparatus is indefinite. The amended claim 1 is clearly directed to a method now.

2. Rejections of claims 1, 28 and 29 under USC 102(b)

Claims 1-20

Claim 2 has been incorporated into claim 1. In addition, claims 5-7 are amended to

describe the switch in an equivalent way. No new matter is introduced.

Akimoto does teach switching on the signal shunt switches and switching off the offset canceling buffer outputting switches in the second half of one horizontal scanning period to produce an average voltage. However, Akimoto fail to teach or suggest turning off the operating voltage (such as bias voltage) inputted into an offset canceling buffer to disable the offset canceling buffer in the second half of one horizontal scanning period. Thus, the amended claim 1 overcomes the rejection under USC 102(b) with respect to Akimoto's teachings. Further, Imamura doesn't teach or suggest turning off the operating voltage inputted into an offset canceling buffer in the second half of one horizontal scanning period. This feature of the present invention is not obvious for a person of ordinary skill in the art in view of Akimoto and Imamura's teachings.

Reconsideration of the amended claim 1 is politely requested. Claims 3-20 are dependant on the amended claim 1 and should be allowed if the amended claim 1 is found allowable.

Claim 28

Claim 28 has been amended to include the limitation of "turning off an operating voltage inputted into said output buffer when the first end of said switch is connected to the input terminal of said output buffer." As mentioned above, the amended claim 28 overcomes the rejection under USC 102(b) with respect to Akimoto's teachings. Further, this feature of the present invention is not obvious for a person of ordinary skill in the art in view of Akimoto and Imamura's teachings. Reconsideration of the amended claim 28 is politely requested.

Claim 29

According to Fig. 4 of the present invention, a driving unit comprises an output buffer and two switches S1, S2, where the switch S2 is coupled between output terminals of two driving units. However, Akimoto fails to disclose this feature. Referring to Fig. 11, Akimoto teaches that a driving unit includes an offset canceling buffer 20, an offset canceling buffer outputting switch 66, and a signal line shunting switch 67. The output terminal of the driving unit is directly connected to a corresponding pixel. There is no switch coupled between output terminals of two driving units. Thus, the claim 29 overcomes the rejection under USC 102(b) with respect to Akimoto's teachings. Further, Imamura doesn't teach or suggest a second switch connected between output terminals of two driving units. This feature of the present invention is not obvious for a person of ordinary skill in the art in view of Akimoto and Imamura's teachings. Reconsideration of the claim 29 is politely requested.

3. Rejections of claim 21 under USC 103(a)

Claim 27 has been incorporated into claim 21. No new matter is introduced. As mentioned above, both Akimoto and Imamura fail to teach turning off operating voltages inputted into the output buffers when averaging the driving voltages. Thus, the amended claim 21 overcomes the rejection under USC 103(a) with respect to Akimoto and Imamura's teachings.

Reconsideration of the amended claim 21 is politely requested. Claims 22-26 are dependant on the amended claim 21 and should be allowed if the amended claim 21 is found allowable.

4. New claims 34-39

New claim 34 includes most limitations of original claims 1 and 9. New claim 35 includes most limitations of original claims 1, 13, 14, and 16. New claim 36 includes most

limitations of original claims 1, 13, 14, and 18. New claim 37 includes most limitations of original claims 21 and 22. New claim 38 includes most limitations of original claims 21 and 24. New claim 39 is also added to cover additional scope of the invention. No new matter is introduced.

As to claim 34, it includes the limitation of each second switch connected between corresponding two pixels for selectively connecting the corresponding two pixels, which is not disclosed by Akimoto and Imamura. Akimoto only teaches a plurality of second switch (67) for odd-number rows and even-number rows of the signal lines 7 alternately connects to the upper write circuit or the lower write circuit(Fig. 11).

As to claims 35 and 37, each claims a frequency divider capable of receiving an input data to set a predetermined divisor. However, Imamura merely teaches the frequency divider 121 of the timing signal generator 120 frequency-divides the low frequency clock f_L at the specified ratio to generate the latch pulse LP. Imamura fails to teach or suggest that frequency divider sets the frequency-dividing ratio via receiving an external data. In other words, Imamura fails to teach or suggest that the frequency-dividing ratio is programmable. In addition, Akimoto fails to teach or suggest that frequency divider sets the frequency-dividing ratio via receiving an input data.

As one can see, limitations within original claim 18-20 correspond to that within original claims 24-26. Since the examiner said that claim 24 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims, it is believed that claim 18 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. As to claims 36, 38 and 39, each claim features different from Akimoto and Imamura's teachings. Consideration of these

new claims 34-39 is politely requested.

Applicants respectfully request that a timely Notice of Allowance be issued in this case.

Sincerely yours,

Winston Hsu Date: MAR - 8 2005

Winston Hsu, Patent Agent No. 41,526
P.O. BOX 506, Merrifield, VA 22116, U.S.A.
Voice Mail: 302-729-1562
Facsimile: 806-498-6673
e-mail : winstonhsu@naipo.com

Note: Please leave a message in my voice mail if you need to talk to me. The time in D.C. is 13 hours behind the Taiwan time, i.e. 9 AM in D.C. = 10 PM in Taiwan).